

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

I. (a) PLAINTIFF

**TYCO FIRE PRODUCTS LP d/b/a
TYCO FIRE SUPPRESSION & BUILDING PRODUCTS**

(b) County of Residence of First Listed Plaintiff **Montgomery County, PA**
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorney's (Firm Name, Address, and Telephone Number)

John V. Gorman
MORGAN, LEWIS & BOCKIUS LLP
1701 Market Street
Philadelphia, PA 19103-2921
215.963.5000

DEFENDANT

VICTAULIC COMPANY

County of Residence of First Listed Defendant
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE LAND INVOLVED.

Attorneys (If Known)

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
☐ 2 U.S. Government Defendant
☒ 3 Federal Question (U.S. Government Not a Party)
☐ 4 Diversity
(Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- | | | | | | |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| | PTF | DEF | | PTF | DEF |
| Citizen of This State | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Marine Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excl. Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury	<input type="checkbox"/> 362 Personal Injury - Med. Malpractice <input type="checkbox"/> 365 Personal Injury - Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input checked="" type="checkbox"/> 830 Patent <input type="checkbox"/> 840 Trademark SOCIAL SECURITY <input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g))	<input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 480 Consumer Credit <input type="checkbox"/> 490 Cable/Sat TV <input type="checkbox"/> 810 Selective Service <input type="checkbox"/> 850 Securities/Commodities Exchange <input type="checkbox"/> 875 Customer Challenge 12 USC 3410 <input type="checkbox"/> 890 Other Statutory Actions <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 892 Economic Stabilization Act <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 894 Energy Allocation Act <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 900 Appeal of Fee Determination Under Equal Access to Justice <input type="checkbox"/> 950 Constitutionality of State Statutes
REAL PROPERTY	CIVIL RIGHTS	PRISONER PETITIONS	FEDERAL TAX SUITS	
<input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	<input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 444 Welfare <input type="checkbox"/> 445 Amer. w/Disabilities - Employment <input type="checkbox"/> 446 Amer. w/Disabilities - Other <input type="checkbox"/> 440 Other Civil Rights	<input type="checkbox"/> 510 Motions to Vacate Sentence Habeas Corpus: <input type="checkbox"/> 530 General <input type="checkbox"/> 535 Death Penalty <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition	<input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS - Third Party 26 USC 7609	

V. ORIGIN (Place an "X" in One Box Only)

- ☒ 1 Original Proceeding
☐ 2 Removed from State Court
☐ 3 Remanded from Appellate Court
☐ 4 Reinstated or Reopened
☐ 5 Transferred from another district (specify)
☐ 6 Multidistrict Litigation
☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):
35 U.S.C. § 271

Brief description of cause: **Patent Infringement**

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23 **DEMAND \$**

CHECK YES only if demanded in complaint:
JURY DEMAND: ☒ Yes ☐ No

VIII. RELATED CASE(S) IF ANY

(See instructions):

DATE:

SIGNATURE OF ATTORNEY OF RECORD
 Eric Kraeutler, Morgan Lewis & Bockius LLP

9/14/10 Eric Kraeutler

FOR OFFICE USE ONLY

APPENDIX I

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIACASE MANAGEMENT TRACK DESIGNATION FORM

TYCO FIRE PRODUCTS LP d/b/a
TYCO FIRE SUPPRESSION & BUILDING
PRODUCTS
451 North Cannon Avenue
Lansdale, Pennsylvania 19446

Plaintiff,

v.

VICTAULIC COMPANY
4901 Kesslersville Road
Easton, PA 18044

Defendant.

CIVIL ACTION

NO. _____

In accordance with the Civil Justice Expense and Delay Reduction Plan of this court, counsel for plaintiff shall complete a case Management Track Designation Form in all civil cases at the time of filing the complaint and serve a copy on all defendants. (See § 1:03 of the plan set forth on the reverse side of this form.) In the event that a defendant does not agree with the plaintiff regarding said designation, that defendant shall, with its first appearance, submit to the clerk of court and serve on the plaintiff and all other parties, a case management track designation form specifying the track to which that defendant believes the case should be assigned.

SELECT ONE OF THE FOLLOWING CASE MANAGEMENT TRACKS:

- (a) Habeas Corpus - Cases brought under 28 U.S.C. § 2241 through § 2255. ☐
- (b) Social Security - Cases requesting review of a decision of the Secretary of Health and Human Services denying plaintiff Social Security Benefits. ☐
- (c) Arbitration - Cases required to be designated for arbitration under Local Civil Rule 53.2. ☐
- (d) Asbestos - Cases involving claims for personal injury or property damage from exposure to asbestos. ☐
- (e) Special Management - Cases that do not fall into tracks (a) through (d) that are commonly referred to as complex and that need special or intense management by the court. (See reverse side of this form for a detailed explanation of special management cases.) ☒
- (f) Standard Management - Cases that do not fall into any one of the other tracks. ☐

9/14/10
Date

Eric Kraeutler
Attorney-at-law

Attorney for Plaintiff
Tyco Fire Products LP d/b/a Tyco Fire Suppression & Building
Products

215.963.5000
Telephone

215.963.5001
Fax

ekraeutler@morganlewis.com
Email Address

UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF PENNSYLVANIA - DESIGNATION FORM to be used by counsel to indicate the category of the case for the purpose of assignment to appropriate calendar.

Address of Plaintiff: 451 North Cannon Avenue, Lansdale, Pennsylvania 19446

Address of Defendant: 4901 Kesslersville Road, Easton, Pennsylvania 18044

Place of Accident, Incident or Transaction:

U.S., including Pennsylvania

(Use Reverse Side For Additional Space)

Does this civil action involve a nongovernmental corporate party with any parent corporation and any publicly held corporation owning 10% or more of its stock? (Attach two copies of the Disclosure Statement Form in accordance with Fed.R.Civ.P. 7.1(a)) Yes ☒ No ☐

Does this case involve multidistrict litigation possibilities:

Yes ☐ No ☒

RELATED CASE, IF ANY:

Case Number: _____ Judge _____ Date Terminated: _____

Civil cases are deemed related when yes is answered to any of the following questions:

1. Is this case related to property included in an earlier numbered suit pending or within one year previously terminated action in this court?

Yes ☐ No ☒

2. Does this case involve the same issue of fact or grow out of the same transaction as a prior suit pending or within one year previously terminated action in this court?

Yes ☐ No ☒

3. Does this case involve the validity or infringement of a patent already in suit or any earlier numbered case pending or within one year previously terminated action in this court?

Yes ☐ No ☒

CIVIL: (Place ☒ in ONE CATEGORY ONLY)

A. Federal Question Cases

1. ☐ Indemnity Contract, Marine Contract, and All Other Contracts
2. ☐ FELA
3. ☐ Jones Act-Personal Injury
4. ☐ Antitrust
5. ☒ Patent
6. ☐ Labor-Management Relations
7. ☐ Civil Rights
8. ☐ Habeas Corpus
9. ☐ Securities Act(s) Cases

10. ☐ Social Security Review Cases

11. ☐ All other Federal Question Cases
(Please specify)

B. Diversity Jurisdiction Cases:

1. ☐ Insurance Contract and Other Contracts
2. ☐ Airplane Personal Injury
3. ☐ Assault, Defamation
4. ☐ Marine Personal Injury
5. ☐ Motor Vehicle Personal Injury
6. ☐ Other Personal Injury (Please specify)
7. ☐ Products Liability
8. ☐ Products Liability – Asbestos
9. ☐ All other Diversity Cases
(Please specify)

ARBITRATION CERTIFICATION

(Check appropriate Category)

I, Eric Kraeutler counsel of record do hereby certify:

☐ Pursuant to Local Civil Rule 53.2, Section 3(c)(2), that to the best of my knowledge and belief, the damages recoverable in this civil action case exceed the sum of \$150,000.00 exclusive of interest and costs:

☒ Relief other than monetary damages is sought.

DATE:

9/14/10

Eric Kraeutler

Attorney-at-Law

32189

Attorney I.D.

NOTE: A trial de novo will be a trial by jury only if there has been compliance with F.R.C.P. 38.

I certify that, to my knowledge, the within case is not related to any case now pending or within one year previously terminated action in this court except as noted above.

DATE:

Attorney-at-Law

Attorney I.D. #

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

**TYCO FIRE PRODUCTS LP d/b/a
TYCO FIRE SUPPRESSION & BUILDING
PRODUCTS**

Plaintiff,

v.

VICTAULIC COMPANY

Defendant.

CIVIL ACTION

No.: _____

JURY TRIAL DEMANDED

COMPLAINT

Plaintiff Tyco Fire Products LP d/b/a Tyco Fire Suppression & Building Products (“Tyco”) avers as follows:

The Parties

1. Plaintiff Tyco is a limited partnership organized and existing under the laws of the State of Delaware, having its principal place of business at 451 North Cannon Avenue, Lansdale, Pennsylvania 19446.

2. Plaintiff Tyco is the assignee of record of United States Patent No. 7,793,736.

3. Plaintiff Tyco is a leading manufacturer of fire protection products and systems.

4. Upon information and belief, Defendant Victaulic Company (“Victaulic”) is a corporation organized and existing under the laws of the State of New Jersey, having a principal place of business at 4901 Kesslersville Road, Easton, Pennsylvania 18044.

Jurisdiction and Venue

5. This Court has original jurisdiction over the subject matter of this action pursuant

to the provisions of Title 28, United States Code (“U.S.C.”) §§ 1331 and 1338(a), because the action arises under the Patent Laws of the United States, title 35 U.S.C. § 1, et seq.

6. Defendant Victaulic is subject to personal jurisdiction in this district because, *inter alia*, it directly and through its agents regularly does, solicits, and transacts business in the Eastern District of Pennsylvania and in the Commonwealth of Pennsylvania, such as by selling or offering to sell products, including its Model LP-46 V4603 K25 Standard Response Storage Upright Sprinkler having a temperature rating of 286° Fahrenheit.

7. Venue is proper in this district pursuant to 28 U.S.C. §§ 1391(b) and (c) and § 1400(b).

COUNT I

Infringement of United States Patent No. 7,793,736

8. Plaintiff Tyco hereby incorporates by reference the allegations set forth in paragraphs 1 through 8 as if fully set forth herein.

9. On September 14, 2010 United States Patent No. 7,793,736 (“the ‘736 patent”) entitled “Ceiling-Only Dry Sprinkler Systems and Methods for Addressing a Storage Occupancy Fire” was duly and legally issued to Tyco as assignee.

10. Possessing all substantial rights to the ‘736 patent and the ‘736 patent being in full force and effect, Plaintiff Tyco has the right to sue for any infringement thereof.

11. Defendant Victaulic is making, using, selling, offering for sale and or importing a Model LP-46 V4603 K25 Standard Response Storage Upright Sprinkler with temperature rating of 286° Fahrenheit.

12. Defendant Victaulic markets the Model LP-46 V4603 K25 Standard Response Storage Upright Sprinkler with temperature rating of 286° Fahrenheit with a data sheet submittal.

This technical data sheet submittal can be found on Defendant Victaulic's website at <http://www.victaulic.com/Docs/lit/40.98.pdf>, and is attached to this complaint as Exhibit A.

Upon information and belief, Defendant Victaulic provides this data sheet to each customer of its V4603 K25 Standard Response Storage Upright Sprinkler with temperature rating of 286° Fahrenheit.

13. Defendant Victaulic has contributorily infringed and is contributorily infringing the '736 patent, and in particular, at least claims 1 and 2, by making, using, selling, offering for sale, importing or supplying at least the Model LP-46 V4603 K25 Standard Response Storage Upright Sprinkler with a temperature rating of 286° Fahrenheit, knowing that such sprinkler is especially made or especially adapted for use in the system and/or method claimed in the '736 patent, such sprinkler not being a staple article or commodity of commerce suitable for a substantial noninfringing use, all in violation of 35 U.S.C. § 271(c), and will continue to do so notwithstanding its knowledge of the '736 patent unless enjoined by this Court.

14. By reason of Defendant Victaulic's acts of infringement, Plaintiff Tyco has suffered and is suffering damages, including impairment of the value of the '736 patent, in an amount yet to be determined.

15. Defendant Victaulic's acts of infringement are causing irreparable harm to Plaintiff Tyco and will continue to cause irreparable harm unless enjoined by this Court.

RELIEF REQUESTED

WHEREFORE, Plaintiff Tyco requests that the Court enter a judgment in Plaintiff Tyco's favor and against Victaulic, and provide Plaintiff Tyco the following relief:

- A. Order, adjudge and decree that Defendant Victaulic has contributorily infringed the '736 patent in violation of 35 U.S.C. § 271(c);

- B. Issue preliminary and permanent injunctive relief prohibiting Defendant Victaulic and its respective parents, subsidiaries, principals, officers, directors, agents, attorneys, employees and all others in privity with it from committing the acts constituting infringement of the '736 patent, pursuant to 35 U.S.C. § 283; and
- C. Award such other and further relief as the Court may deem just and proper.

JURY TRIAL DEMAND

Plaintiff Tyco Fire Products LP d/b/a Tyco Fire Suppression & Building Products hereby demands a trial by jury for each and every issue so permitted by law and statute.

Respectfully submitted,

Dated: September 14, 2010



Eric Kraeutler (Pa. I.D. No. 32189)
John V. Gorman (Pa. I.D. No. 80631)
Andrew Whitney (Pa I.D. No. 201534)
Squire J. Servance (Pa. I.D. No. 207623)
MORGAN, LEWIS & BOCKIUS LLP
1701 Market Street
Philadelphia, PA 19103-2921
215.963.5000

Attorneys for Plaintiff
Tyco Fire Products LP d/b/a
Tyco Fire Suppression & Building Products

EXHIBIT A

FireLock® LP-46 Low Pressure Storage Sprinkler

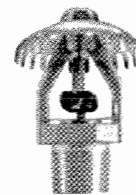
Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler, Patent Pending

MODEL LP-46

This storage sprinkler was designed for controlling fires in single, double and multiple row rack storage of up to Cartoned, Unexpanded, Group A plastic commodities stored up to 25 feet/7.6 meters in height under a maximum 30 foot/9 meter high ceiling without the need for in-rack sprinklers. It may also be used on a dry sprinkler system protecting commodity hazards up to and including cellulosic products (class 3) under a maximum 40ft/12.2m ceiling height. These sprinklers utilize a standard response, fusible element, stainless steel operating components and a Teflon coated spring seal. The Model LP-46 has a K-Factor of 25.2 imp/36.8 S.I.



SEE VICTAULIC PUBLICATION 10.01 FOR DETAILS

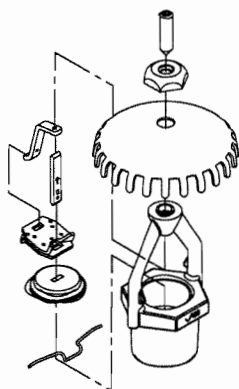


UPRIGHT V4603
PATENT PENDING

SPRINKLER OPERATION:

The operating mechanism is a durable, standard response, fusible solder link. During a fire, the ambient temperature rises causing the solder to melt. When the ambient temperature reaches the rated temperature of the sprinkler, the link fuses. As a result, the waterway is cleared of all sealing parts and water is discharged towards the deflector. The deflector is designed to distribute the water in a pattern that is most effective in controlling rapidly growing storage fires.

TECHNICAL SPECIFICATIONS:



Exaggerated for clarity

Model: LP-46 (SIN V4603)

Style: Upright

K-Factor: 25.2 Imp/(36.8 S.I.)[^]

Nominal Thread Size: 1" NPT/25mm BSPT

Max. Working Pressure: 175psi/1200 kPa

Factory Hydrostatic Test: 100% @

500psi/3450 kPa

Min. Operating Pressure: Application specific

Temperature Rating: See chart on page 2.

MATERIAL SPECIFICATIONS

Deflector: Bronze per UNS C51000

Link: Nickel per UNS N02200

Lever: Monel per UNS N04400

Load Screw: Stainless Steel per UNS S31600

Cap: Stainless steel per UNS S31600

Seal: Teflon* tape

Strutt: Monel per UNS N04400

Frame: Proprietary Dezincification Resistant

Die-Cast Brass

Spring: Stainless Steel per UNS S30200

ACCESSORIES

Installation Wrench:

- Open End: V46

Sprinkler Finishes:

- Plain brass

For cabinets and other accessories, refer to separate sheet.

[^] For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.

* Teflon is a registered trademark of Dupont Co.

JOB/OWNER

System No. _____

Location _____

CONTRACTOR

Submitted By _____

Date _____

ENGINEER

Spec Sect _____ Para _____

Approved _____

Date _____

www.victaulic.com

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2010 VICTAULIC COMPANY. ALL RIGHTS RESERVED.

REV C



40.98 1

FireLock® LP-46 Low Pressure Storage Sprinkler

Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending

MODEL LP-46**APPROVALS/LISTINGS**

Model	Nominal K-Factor Imperial S.I. [^]	Response	Deflector Type	FM Approved Temperature Ratings †
V4603	25.2 36.8	Standard	Upright	A

[^] For K-Factor when pressure is measured in Bar, multiply S.I. units by 10.0.

[†] Listings and approvals as of printing.

TEMPERATURE RATINGS

Approval	Temperature Rating
A	162°F/72°C, 212°F/100°C, 286°F/141°C

162°F/72°C rated sprinklers should be used whenever possible. 212°F/100°C temperature rated sprinklers are listed and approved for use adjacent to unit heaters or throughout the building when the ceiling temperatures consistently exceed 100°F/38°C.

FireLock® LP-46 Low Pressure Storage Sprinkler

Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending

MODEL LP-46

SYSTEM DESIGN AND LISTING REQUIREMENTS PER FM GLOBAL



SCOPE

The Victaulic Company (Victaulic) model V4603 sprinkler has recently been FM Approved for installation on 1 in. (25 mm) NPT fittings. This control-mode specific-application (CMSA) upright sprinkler has a K25.2 (K360) K-factor value and is available in a nominal temperature rating of 160°F (70°C), 212°F (100°C), and 286°F (141°C). Full-scale fire testing has demonstrated that when this sprinkler is operating at a minimum pressure of 20 psi (1.4 bar) on a wet-type sprinkler system, it can protect commodity hazards up to and including cartoned unexpanded plastics when stored under ceiling heights not exceeding 30 ft (9.0 m). Full-scale fire testing has also demonstrated that when this sprinkler is operating at a minimum pressure of 15 psi (1.0 bar) on a dry-type sprinkler system, it can protect commodity hazards up to and including cellulosic products (Class 3) when stored under ceiling heights not exceeding 40 ft (12.0 m). Guidelines for the sprinkler's installation are provided below.

LOSS PREVENTION RECOMMENDATIONS

Install the Victaulic V4603 upright CMSA automatic sprinkler in accordance with the following guidelines:

1. **Application:** This FM Approved CMSA sprinkler may be used to protect Class 1 through Class 4 commodities, as well as cartoned unexpanded plastics (but not cartoned expanded plastics nor any uncartoned plastics) under ceiling heights not exceeding 30 ft (9.0 m). In addition, this sprinkler may be used to protect Class 1 through Class 3 commodities under ceiling heights not exceeding 40 ft (12.0 m). The sprinkler may be used to protect these commodities when maintained in storage arrangements consisting of solid-piled, palletized, shelf, bin-box, and open-frame racks. The sprinkler can also be used to protect portable rack storage if the portable racks meet the requirements for them to be considered open-frame racks (see DS 8-9, Storage of Class 1, 2, 3, 4, and Plastic Commodities). For all storage arrangements, maintain a minimum 3 ft (0.9 m) clearance between the top of storage and the sprinkler deflector.

2. **Temperature Rating** – The Victaulic model V4603 sprinkler is available in nominal temperature ratings of 160°F (70°C), 212°F (100°C), and 286°F (141°C). Use the nominally rated 160°F (70°C) sprinkler for all acceptable applications on a wet-type sprinkler system unless the ambient temperature of the protected occupancy requires the nominal temperature rating to be 212°F (100°C). Use the nominally rated, 286°F (141°C) sprinkler for all acceptable applications on a dry-type sprinkler system.

3. **Hydraulic Design:** Base the wet-type sprinkler system design requirements for the Victaulic model V4603 sprinkler on a minimum operating pressure of 20 psi (1.4 bar) over the most remote 12 sprinklers with an allowance of 250 gpm (950 L/min) for manual extinguishment and a minimum duration of 60 minutes. Base the dry-type sprinkler system design requirements for the Victaulic model V4603 sprinkler on a minimum operating pressure of 15 psi (1.0 bar) over the most remote 24 sprinklers with an allowance of 500 gpm (1,900 L/min) for manual extinguishment and a minimum duration of 120 minutes. This pressure must be reached and maintained within a timeframe of 25 seconds upon first sprinkler actuation.

Note that the 25-second delivery time needs to be confirmed via an analysis by Engineering Standards or a software program listed in the Specification Tested Product section of the Approval Guide, an online resource of FM Approvals. If confirmed by the software program, base the sprinkler operation sequence on the simultaneous opening of the four most-remote sprinklers (two sprinklers on two lines).

Commodity Hazards Other Than Class 1 through 4 and Cartoned Plastics: The Victaulic V4603 K25.2 (K360) upright sprinkler can be used to protect any commodity hazard that can be protected by the K11.2, upright CMSA sprinkler. Base the design for the K25.2 upright sprinkler on the same design requirement for the K11.2 sprinkler, however the minimum required pressure shall be 15 psi. Refer to FM Engineering Bulletin 02-09.

FireLock® LP-46 Low Pressure Storage Sprinkler

Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending

MODEL LP-46

SYSTEM DESIGN AND
LISTING REQUIREMENTS
PER FM GLOBAL



4. Shape of Operating Area: Base the shape of the operating area on a 1.2 shape factor for ceiling slopes up to 5°, or a 1.4 shape factor for ceiling slopes over 5° and up to 10°.

For a wet-type sprinkler system, base the number of sprinklers in the operating area parallel to the branchline on the following equation:

Number of AS in operating area parallel to branchline = (shape factor / on-line AS spacing) x (12 x area spacing of sprinklers)^{0.5}.

For a dry-type sprinkler system, base the number of sprinklers in the operating area parallel to the branchline on the following equation:

Number of AS in operating area parallel to branchline = (shape factor / on-line AS spacing) x (24 x area spacing of sprinklers)^{0.5}.

Round these equations to the nearest whole number using standard rounding methods (i.e., round down if the resulting fraction is 0.49 or less, and round up if the resulting fraction is 0.50 or greater).

5. System Type: For the wet-type sprinkler system designs outlined above, wet-pipe sprinkler systems or pre-action sprinkler systems whose sprinkler protection design can be based on the equivalent of a wet-pipe system are acceptable. For the dry-type sprinkler system designs outlined above, dry-pipe sprinkler systems, pre-action sprinkler systems whose sprinkler protection design can be based on the equivalent of a dry-pipe system or refrigerated area sprinkler systems are acceptable.

6. Sprinkler Spacing: For ceiling heights up to and including 30 ft. (9.0 m), the minimum and maximum linear distances between sprinklers are 8 ft (2.4 m) and 12 ft (3.6 m) respectively. The minimum and maximum areas of coverage per sprinkler are 80 ft² (7.5 m²) and 100 ft² (9.3 m²) respectively. For ceiling heights over 30 ft. (9.0 m), the maximum linear distance between sprinklers decreases to 10 ft (3.0 m), while the minimum and maximum areas of coverage per sprinkler remain the same.

7. Sprinkler Location from Walls: Locate the automatic sprinklers with respect to walls as follows (measured perpendicular to the wall):

- Minimum horizontal distance: 4 in. (100 mm)
- Maximum horizontal distance unless indicated otherwise in either the occupancy-specific operating standard or the *Approval Guide*:
 - (a) Wall angle greater than 90°: 5 ft (1.5 m)
 - (b) Wall angle equal to or less than 90°: 7 ft (2.1 m)

8. Sprinkler Location from Ceilings: Locate the centerline of the automatic sprinkler's thermal sensing element with respect to the vertical distance below ceilings as follows:

- Minimum vertical distance: 2 in. (50 mm) for smooth ceilings or 4 in. (100 mm) for nonsmooth ceilings
- Maximum vertical distance: 11 in. (275 mm)

9. Obstructions: Although the Victaulic model V4603 is not considered a suppression-mode sprinkler, follow the obstruction requirements for upright suppression-mode sprinklers in DS 2-2, *Installation Rules for Suppression Mode Automatic Sprinklers*.

SUPPORT FOR RECOMMENDATIONS

The Victaulic model V4603 CMSA upright sprinkler has successfully undergone mechanical inspection and performance evaluation testing in accordance with FM Approval Standard Class 2000, as well as full-scale fire testing for the protection of commodity hazards up to and including cartoned unexpanded plastics under a ceiling height not exceeding 30 ft (9.0 m) as well as commodity hazards up to and including Class 3 materials under a ceiling height not exceeding 40 ft (12.0 m). Acceptable storage arrangements include solid-piled, palletized, shelf, bin-box, and openframe storage racks. Portable racks are also acceptable if they meet the requirements for them to be considered open-frame racks (see DS 8-9).

FIRE PROTECTION PRODUCTS – FIRELOCK AUTOMATIC SPRINKLERS

40.98

FireLock® LP-46 Low Pressure Storage Sprinkler

Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending

MODEL LP-46**FM DESIGN CRITERIA**

WET SYSTEM – Palletized, solid pile, Bin-Box, Single-, Double-, and Multiple Rack Storage (without solid shelves) storage of class I-IV and plastic commodities for storage maintained under ceiling heights up to and including 30 ft (9.1 m) using Control Mode Specific Application pendent sprinkler LP-46.

Configuration	Commodity Class	Maximum Ceiling/ Roof Height	Minimum Operating Area	Minimum Operating Pressure
Palletized and Solid Piles, Shelf or Bin-Box, and Open Frame (no open-top containers or solid shelves)	Class I-IV and Cartoned Plastics	30 ft* 9.1 m	1200 ft ² (111.5 m ²)	20 psi 138 kPa

*Hose Stream allowance 250 gpm (950 lpm) for manual extinguishment and a minimum duration of 60 minutes.

DRY SYSTEM – Palletized, solid pile, Bin-Box, Single-, Double-, and Multiple Rack Storage (without solid shelves) storage of class I-III for storage maintained under ceiling heights up to and including 40 ft (12.2 m) using Control Mode Specific Application upright sprinkler LP-46.

Configuration	Commodity Class	Maximum Ceiling/ Roof Height	Minimum Operating Area	Minimum Operating Pressure
Palletized and Solid Piles, Shelf or Bin-Box, and Open Frame (no open-top containers or solid shelves)	I-III	40 ft* 12.2 m*	1200 ft ² (111.5 m ²)	15 psi 103 kPa

*Hose Stream allowance 500 gpm (950 lpm) for manual extinguishment and a minimum duration of 120 minutes.

FIRE PROTECTION PRODUCTS - FIRELOCK AUTOMATIC SPRINKLERS

40.98

FireLock® LP-46 Low Pressure Storage Sprinkler

Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending

MODEL LP-46**RATINGS**

All links are rated for temperatures from -67°F/-55°C to those shown in table below.

Sprinkler Temperature Classification	Victaulic Part Identification	Temperature - °F/°C		Link Color
		Nominal Temperature Rating	Maximum Ambient Temperature Allowed	
Ordinary	N	162 72	100 38	Black/None
Intermediate	G	212 100	150 65	Black with White Dot/ White arms
High	J	286 141	225 107	Black with Blue Dot

ORDERING INFORMATION

Please specify the following when ordering:

Sprinkler Model Number

Style

Temperature Rating

K-Factor

Thread Size

Quantity

Sprinkler Finish

Escutcheon Finish

Wrench Model Number

WARNING**WARNING**

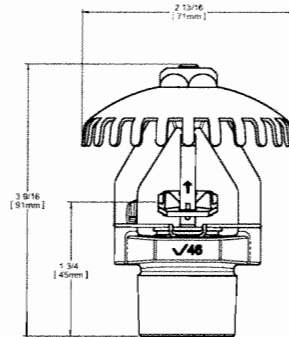
- Always read and understand installation, care, and maintenance instructions, supplied with each box of sprinklers, before proceeding with installation of any sprinklers.
- Always wear safety glasses and foot protection.
- Depressurize and drain the piping system before attempting to install, remove, or adjust any Victaulic piping products.
- Installation rules, especially those governing obstruction, must be strictly followed.
- Painting, plating, or any re-coating of sprinklers (other than that supplied by Victaulic) is not allowed.

Failure to follow these instructions could result in serious personal injury and/or property damage.

The owner is responsible for maintaining the fire protection system and devices in proper operating condition. For minimum maintenance and inspection requirements, refer to the current National Fire Protection Association pamphlet that describes care and maintenance of sprinkler systems. In addition, the authority having jurisdiction may have additional maintenance, testing, and inspection requirements that must be followed.

If you need additional copies of this publication, or if you have any questions about the safe installation of this product, contact Victaulic World Headquarters: P.O. Box 31, Easton, Pennsylvania 18044-0031 USA, Telephone: 001-610-559-3300.

FIRE PROTECTION PRODUCTS · FIRELOCK AUTOMATIC SPRINKLERS

40.98**FireLock® LP-46 Low Pressure Storage Sprinkler**Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending**MODEL LP-46****DIMENSIONS****Standard Upright – LP-46 (SIN V4603)****AVAILABLE WRENCHES**

Sprinkler Type	Open End
LP-46 (SIN V4603) Upright	V46

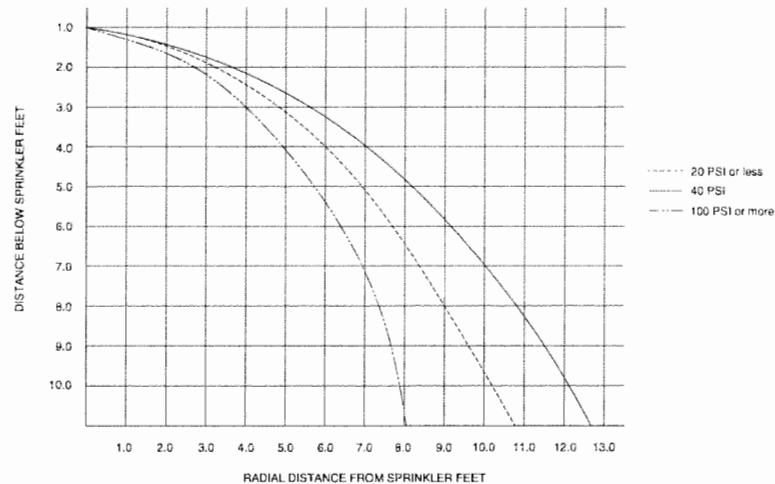
FIRE PROTECTION PRODUCTS – FIRELOCK AUTOMATIC SPRINKLERS

40.98**FireLock® LP-46 Low Pressure Storage Sprinkler**

Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending

MODEL LP-46**NOMINAL WETTING PATTERNS**

Model LP-46 (SIN V4603)
Upright Spray Pattern

**NOTES:**

- 1 Data shown is approximate and can vary due to differences in installation.
- 2 These graphs illustrate approximate wetting patterns for these specific Victaulic FireLock Automatic Sprinklers. They are provided as information for guidance and should not be used as minimum sprinkler spacing rules for installation. Sprinkler location shall be in accordance with FM Global Engineering Bulletin and/or Data Sheets. Failure to follow these guidelines could adversely affect the performance of the sprinkler and will void all Listings, Approvals and Warranties.
- 3 All patterns are symmetrical to the waterway.

FIRE PROTECTION PRODUCTS – FIRELOCK AUTOMATIC SPRINKLERS

40.98

FireLock® LP-46 Low Pressure Storage Sprinkler

Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending

MODEL LP-46

FireLock® LP-46 Low Pressure Storage Sprinkler

Model LP-46 (SIN) V4603, K25, Standard Response Storage Upright Sprinkler,
Patent Pending

MODEL LP-46**WARRANTY**

Refer to the Warranty section of the current Price List or contact Victaulic for details.

NOTE

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

For complete contact information, visit www.victaulic.com

40.98 5563 REV C UPDATED 01/2010

VICTAULIC IS A REGISTERED TRADEMARK OF VICTAULIC COMPANY. © 2010 VICTAULIC COMPANY. ALL RIGHTS RESERVED.



**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

**TYCO FIRE PRODUCTS LP d/b/a
TYCO FIRE SUPPRESSION &
BUILDING PRODUCTS
451 North Cannon Avenue
Lansdale, Pennsylvania 19446**

Plaintiff,

v.

**VICTAULIC COMPANY
4901 Kesslersville Road
Easton, PA 18044**

Defendant.

CIVIL ACTION

No.: _____

**JURY TRIAL
DEMANDED**

PLAINTIFF'S DISCLOSURE STATEMENT

Pursuant to Federal Rule of Civil Procedure 7.1, Plaintiff TYCO FIRE PRODUCTS LP d/b/a TYCO FIRE SUPPRESSION AND BUILDING PRODUCTS certifies that it is an indirect corporate subsidiary of Tyco International Ltd., securities of which are publicly traded on the New York Stock Exchange.

Dated: September 14, 2010

BY:



Eric Kraeutler (Pa. I.D. No. 32189)
John V. Gorman (Pa. I.D. No. 80631)
Andrew C. Whitney (Pa. I.D. No. 201534)
Squire J. Servance (Pa. I.D. No. 207623)
Morgan, Lewis & Bockius LLP
1701 Market Street
Philadelphia, PA 19103-2921
p. 215.963.5000
f. 215.963.5001